Title of Instructional Materials: CPM Educational Program Algebra Connections

Grade Level: Algebra I

Summary of CPM Educational Program Algebra Connections

Overall Rating:	☐ Weak (1-2) ☐ Moderate (2-3) ☑ Strong (3-4)	Important Mathematical Ideas:	Weak (1-2)Moderate (2-3)Strong (2, 4)		
Summary / Justification / Evidence While the text does not relate all proceed contexts, it makes an attempt to at less interesting to students. The book has mathematical ideas, skills and proceed relationships. The standards that are Algebra I the publisher said would be being in other courses or in the supplementary.	ee: ablems and ideas to real-life east making the problems as a balanced approach to dures, and mathematical e not addessed specifically in e made available online due to it	Summary / Justification / Evidence: Important mathematical ideas are evident and conceptually developed; however, they do not frequently emerge within the context of real world examples. The text uses investigative problems. Their mathematical ideas are also interconnected. The emphasis on mutliple representations (table, graph, equation, etc.) and moving from the concrete to the abstract allow students to approach problems multiple ways (p. 122 #3-83).			
Skills and Procedures:	☐ Weak (1-2) ☐ Moderate (2-3) ☑ Strong (3-4)	Mathematical Relationships:	Weak (1-2)Moderate (2-3)Strong (3-4)		
Summary / Justification / Evidence: This text integrates old concepts and ideas with new procedures and skills. In the student problems it builds conceptual understanding by connecting different representations and mathematical ideas (p. 432 #10-78 through #10-82)		Summary / Justification / Evidence This text focuses on building unders unified whole. This is evident in that focused on drill-and-skill as much as mathematical relationships.	standing of mathematics as a at the student problems are not		

CPM Educational Program algebra Connections

INDIANA'S EDUCATION 20. UNDTABLE

-Overall improsped - a couple of the standards are hit in the alg 2 currialum; however

intro later said they will give access

online

to all through web
- State & Prob Standards are really only hit in state resource, which is seperate, but can be accessed

Instructional Materials **Analysis and Selection**

Phase 3: Assessing Content Alignment to the Common Core State Standards for Mathematics

Traditional Pathway for High School: Algebra I





Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics

A project of
The Indiana Education Roundtable, The Indiana Department of Education,
and
The Charles A. Dana Center at The University of Texas at Austin

2010-2011

Title of Instructional Materials: CPM Educational Program Algebra Connections

ALGEBRA I — NUMBER AND QUANTITY (N) The Real Number System (N-RN)

Extend the properties of exponents to rational exponents.	Summary and documental met. Cite examples from the	tion of how t	he domain, clu	ster, and sta	ndard are
N-RN.1	met. One examples from the	ie materials.			
Explain how the definition of the meaning of rational exponents follows from	Important Mathematical Ideas	+		-	
extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define $5^{1/3}$ to be the cube root of 5 because we want $(51/3)3 = 5(1/3)^3$ to hold, so		I	2	3	4
5 ^{1/3}) ³ must equal 5.	Skills and Procedures				
	Caree Contract	1	2	3	4
	Mathematical Relationships	+	-		1
	4	1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / E Best coverage o	vidence this co	ncept I'	ve seen!	
10,4,3	A				
10,4,5	Portions of the domain, clu developed in the instructio	ster, and sta	indard that are s (if any):	missing or n	ot well
	Overall Rating	4		1	

Reviewed By:	
Title of Instructional Materials:	

Extend the properties of exponents to rational exponents.	Summary and documentat met. Cite examples from the	ion of how to materials.	he domain, clus	ster, and standa	ard are
N-RN.2	Important Mathematical Ideas		1	ï	1.
Rewrite expressions involving radicals and rational exponents using the properties of exponents.		1	2	3	4
	Skills and Procedures	+		-	
	and and done	1	2	3	4
	M				•
	Mathematical Relationships	1	2	3	4
	Summary / Justification / E	ividence This Co	meept cl'u	e seen	
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
10.4.3	Portions of the domain, cludeveloped in the instruction	ister, and st	andard that are s (if any):	missing or not	well
	-				
	Overall Rating				



Reviewed By:	¥	
Title of Instructional Materials:		_

The Real Number System (N-RN)

Use properties of rational and irrational numbers.	Summary and documentation of how the domain, cluster, and standard at met. Cite examples from the materials.			dard are	
N-RN.3	met. Oite examples from th	e materials			
Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	Important Mathematical Ideas	1	2	3	4
	Skills and Procedures	 	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / Ev	vidence			
ndicate the chapter(s), section(s), and/or page(s) reviewed.					
SSD: Real #5	Portions of the domain, clus developed in the instruction	ster, and sta	andard that are s (if any):	missing or no	t well
	Overall Rating		1 2		

Reviewed By:	

			Control of the Contro	
Titla	of Inct	ructiona	1 Mate	
11116	OI IIISI	лисиона	I Wiate	erials:

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentati met. Cite examples from th	on of how e material	the domain, clus.	ıster, and sta	ndard are
N-Q.1 Use units as a way to understand problems and to guide the solution of	Important Mathematical Ideas		+		
multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.*	50 A S	1	2	3	4
Note: Foundation for work with expressions, equations and functions.	Skills and Procedures	4		- I	I x
		1	2	3	4
	Mathematical Relationships	1	2	3	· ************************************
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
6.1.1 - 6.1.3	Portions of the domain, clu developed in the instructio	ster, and s	standard that ar als (if any):	e missing or	not well
7.1.2					
SSD: Dim Analysis	2 11 2 11				
330 - 2007 [003	Overall Rating	1	2	3	4

Reviewed By:	
Title of Instructional Materials:	

ALGEBRA I — NUMBER AND QUANTITY (N) Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentati met. Cite examples from the	on of how	the domain, cl	uster, and stand	dard are
N-Q.2		o material	<u>. </u>		
Define appropriate quantities for the purpose of descriptive modeling.*	Important Mathematical Ideas	+			
Note: Foundation for work with expressions, equations and functions.		1	2	3	4
	Skills and Procedures			+	
		i	2	(3)	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
1.1.3 5.2.3	Portions of the domain, cluded developed in the instruction	ster, and s nal materi	standard that ar als (if any):	re missing or no	t well
	Overall Rating	(

Reviewed By:	

T. 1	CY		
lifle	ot I	nstructional	Materials:
1 1010		nou detional	iviacoliais.

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentation met. Cite examples from the		e domain, clu	ster, and standard	are
N-Q.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.*	Important Mathematical Ideas	 	2	3 (4)
Note: Foundation for work with expressions, equations and functions.					
	Skills and Procedures	1	2	3 (4
	Mathematical Relationships	 	2	3)	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / En w/ the supplement. how the other 3 le	vidence covers th	is topic w lly cover i	ell not ou	ne
1.1.3 5.2.3 7.3.3 SSD: Sign-Figures	Portions of the domain, cludeveloped in the instruction No connection to we use this concept	nal materials	(if any):		ell
	Overall Rating	1	1 2	3	→ 4

m	0.		
IIIA	of I	Instructional	Matamiala
11110	OI I	msu uchonai	Materials:

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.				
A-SSE.1a		e materiais.	1		
1. Interpret expressions that represent a quantity in terms of its context.*	Important Mathematical Ideas	+			
 Interpret parts of an expression, such as terms, factors, and coefficients. 	No. of the second secon	1	2	3	AZ
Note: Linear, exponential, quadratic.	Skills and Procedures	+			
		1	2	3	
	Mathematical Relationships				
		1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / Ex	vidence	to the state of th	2.0 mp VI	م
50005 4.1.4 513 MN	Portions of the domain, clus developed in the instruction	nal materials	(if any):		t well
SSBCEGR FQUEED 8.1.1	doen't explain the parts cohesively, nor does it			it	
	Overall Rating		+	3	} →

Reviewed By:		

T:41-	- f I+-	1	11.	1
Tille	OFFINSH	ructional	Viateria	16.

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
 A-SSE.1b Interpret expressions that represent a quantity in terms of its context.* b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret P(1+r)ⁿ as the product of P and a factor not depending on P. Note: Linear, exponential, quadratic. 	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. 4.1.1 11.1.6 12.4.2	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): 10 coverage of literal equations Overall Rating

Reviewed By:		

T'41	CI	1 2
Title o	f Instructiona	Materials:

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.2	The state of the s
Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.	Important Mathematical Ideas 1 2 3 4
Note: Linear, exponential, quadratic.	V 31 (6 1) (70)
	Skills and Procedures
	1 3 4
	Mathematical Relationships 1 2 3 4
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / Evidence Looks at openial quadratics but the rest is covered in alg 2.
12.1.1 A2C: 2.2.1-2.2.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): only looks at quadratics, rest in alg 2
	Overall Rating 1 2 3 4

Reviewed By:

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Write expressions in equivalent forms to solve problems.	Summary and documentat met. Cite examples from the			ster, and stan	idard are
 A-SSE.3a 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* 	Important Mathematical Ideas	 	1 2	3	
Factor a quadratic expression to reveal the zeros of the function it defines.	and the second of the second				
Note: Quadratic and exponential.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	7. Mar.	A Secure		
	Wallematical (Clationships	1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / E	Evidence up in t	hese lesson	۵	
8.2.3-8.2.5	Portions of the domain, cludeveloped in the instruction			missing or r	not well
	and the second	a tunt tuaja			
	Overall Rating	+		3	

Title of Instructional Materials:

ALGEBRA I - ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.

A-SSE.3b

- 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*
 - b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.

Note: Quadratic and exponential.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

SSD: Optimization Problems using $x = \frac{-b}{2a}$

A 2C: 4.3.1, 47-83 # 7-116, # 7-175, #8-17 CNKPT H Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

Skills and Procedures

Mathematical Relationships

Summary / Justification / Evidence

Supplement helps; other probo too integrated

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

aly 2 covers more of max - min

Overall Rating



Reviewed By:	

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Write expressions in equivalent forms to solve problems.	Summary and documentati met. Cite examples from the	on of how t	he domain, clus	ster, and stand	dard are
A-SSE.3c					
3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.*	Important Mathematical Ideas	1	2	3	4
 c. Use the properties of exponents to transform expressions for exponential functions. For example the expression 1.15' can be rewritten as (1.15^{1/12})^{12t} ≈ 1.012^{12t} to reveal the approximate equivalent monthly interest rate if the annual rate is 15%. Note: Quadratic and exponential. 	Skills and Procedures	1	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / Ev	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed. $A 2C$:	Portions of the domain, clu	ster and et	andard that are	missing or n	at well
#4-21 #9-36 #12-68 #12-97	developed in the instruction only covered in	nal material	s (if any):	missing or no	ot well
#12-141	Overall Rating	++ 🕙	2	3	→

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Summary and documentation of how the domain, cluster, and star	ndard are
The state oxamples from the materials.	
Important Mathematical Ideas 1 2 3	4
Skills and Procedures 1 2 3	4.
Mathematical Relationships 1 2 3	4
Summary / Justification / Evidence	
Portions of the domain, cluster, and standard that are missing or n developed in the instructional materials (if any):	ot well
to quadratics not covered much	
Overall Rating	
	Skills and Procedures 1 2 3 Mathematical Relationships 1 2 3 Summary / Justification / Evidence Portions of the domain, cluster, and standard that are missing or n developed in the instructional materials (if any):

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

A-CED.1

Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*

Note: Linear, quadratic, and exponential (integer inputs only).

Important Mathematical Ideas

Skills and Procedures

Mathematical Relationships 3

Summary / Justification / Evidence

Well covered - how to I who

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating

Indicate the chapter(s), section(s), and/or page(s) reviewed.

3.2.3	19.1.2	1	12.4.4	
3.2.4	#10-40	(14.	
5.2.2	# 10-41	,		
6.1.2	世10-91	1		
8.2.2	#10-109	•		
#8-105	# 10-138	1		
#8-115	12.2.1			
	12.2.2			

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.2	process and materials.
Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.*	Important Mathematical Ideas 1 2 3 4
Note: Linear, quadratic, and exponential (integer inputs only).	
	Skills and Procedures
	1 2 3 4
	Mathematical Relationships
	1 (2) 3 4
	Summary / Justification / Evidence
Indicate the charter(-)ti(-)	Inian covered well
Indicate the chapter(s), section(s), and/or page(s) reviewed.	
7.1.1-7.3.4	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Did not create quadratic or exponential
	Overall Rating
	$\frac{1}{1}$ $\frac{1}{3}$ $\frac{1}{4}$

Title of Instructional Materials:

ALGEBRA I - ALGEBRA (A)

Creating Equations (A-CED)

Summary and documentation of how the domain, cluster, and standard are Create equations that describe numbers or relationships. met. Cite examples from the materials. A-CED.3 Important Mathematical Ideas Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.* Skills and Procedures Note: Linear (integer inputs only). Mathematical Relationships Summary / Justification / Evidence Well built + applicable Indicate the chapter(s), section(s), and/or page(s) reviewed. 9.3.1-9.3.3 Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Title of Instructional Materials:

Important Mathematical Ideas

Summary / Justification / Evidence

Skills and Procedures

ALGEBRA I - ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

A-CED.4

Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law V = IR to highlight resistance R.*

Note: Linear, quadratic, and exponential (integer inputs only).

Mathematical Relationships

1 2 3 4

Indicate the chapter(s), section(s), and/or page(s) reviewed.

5.1.5 * 5.1.6 #11-49

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Only Linear No literal egs of more than 2 variables

Overall Rating

1 2 3

Reviewed By:	
--------------	--

m: 1	^		March 1971 To 1971
litle	O.t	Instructional	Matariala
1 1110	OI	msuuctionai	Materials.

Understand solving equations as a process of reasoning and explain the reasoning.	Summary and documentation met. Cite examples from the	on of how e materials	the domain, clu	ster, and stand	dard are
A-REI.1	11 to 12 to	er erst gr	P to the		
Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Important Mathematical Ideas	1	2	3	4
Note: Master linear; learn as general principle.	Skills and Procedures	1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed. SSO: Justifications for Solving Egs	Mathematical Relationships	1	2	3	
	Summary / Justification / Ex		active		
	Portions of the domain, clus developed in the instruction	ster, and s	tandard that are	e missing or no	ot well
	Overall Rating	1	2	3	$\xrightarrow{4}$

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Solve equations and inequalities in one variable.	Summary and documentation of how the met. Cite examples from the materials.	e domain, cluster, and standard are
A-REI.3	materials.	
Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Important Mathematical Ideas	2 3 4
Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions.		
	Skills and Procedures	2 3 4
	Mathematical Relationships	2 3 4
	Summary / Justification / Evidence	
Indicate the chapter(s), section(s), and/or page(s) reviewed.		
2.1.8-2.1.9 3.2.1-3.2.4	Portions of the domain, cluster, and sta developed in the instructional materials	ndard that are missing or not well (if any):
5.1.5		
9.1.1	The second secon	
9.1.2	Overall Rating	2 3 (4)

Reviewed By:

T'41	CI	nstructio	1 3 4		1
ITTIE	OTI	nctriletie	nall	ateria	c.
I ILIC	OI I	nsu ucuc	mai ivi	allia	13.

Solve equations and inequalities in one variable.	Summary and documentation met. Cite examples from the			ster, and stand	dard are
 A-REI.4a 4. Solve quadratic equations in one variable. a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form (x - p)² = q that has the same solutions. Derive the quadratic formula from this form. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. 	Important Mathematical Ideas Skills and Procedures	← 1	1 2 1 2	1 3	4
	Mathematical Relationships	1	2	3	→ 4.
	Summary / Justification / Ev	/idence			
Indicate the chapter(s), section(s), and/or page(s) reviewed. [0.3.] [0.3.2] [2.3.]	Portions of the domain, clus developed in the instruction			e missing or no	ot well
	Overall Rating	1	2	1 3	→ 4

Title of Instructional Materials:

ALGEBRA I - ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve equations and inequalities in one variable.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

A-REI.4b

- 4. Solve quadratic equations in one variable.
 - b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.

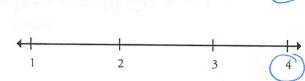
Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions.

Important Mathematical Ideas

Skills and Procedures

I 2 3

Mathematical Relationships



Indicate the chapter(s), section(s), and/or page(s) reviewed.

8.3.1 - 8.3.3

Summary / Justification / Evidence

Good build - up

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By:	
	-

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Solve systems of equations.	Summary and documentation met. Cite examples from the			uster, and stand	lard are
A-REI.5					
Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.	Important Mathematical Ideas	1	2	3	4.
Note: Linear-linear and linear-quadratic.					
	Skills and Procedures	-(1	2	3	4
	Mathematical Relationships	1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed. SSO: Justification for Solv. Egs.	Summary / Justification / Example example Portions of the domain, clu developed in the instruction	ster, and st	tandard that a		
	Overall Rating		1		

Title of Instructional Materials:

ALGEBRA I - ALGEBRA (A)

Solve systems of equations.	Summary and documentati met. Cite examples from the	on of how t	he domain, cl	uster, and stand	ard are
A-REI.6	Important Mathematical Ideas	4			
Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	, and the second second	1	2	3	4
Note: Linear-linear and linear-quadratic.	121				
	Skills and Procedures	+			
	at water and the	1	2	3	4
	Mathematical Relationships				→
		1	2	3	4
	Summary / Justification / Ev	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
4.2.1-4.2.3	Portions of the domain, cluded developed in the instruction	nal material	s (if any):	e missing or no	t well
	no linear - g	uadrati	<u> </u>		
	and the second	or. D			
	Overall Rating	+			→

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Solve systems of equations.	Summary and documentati met. Cite examples from the	on of hove	w the domain, c	luster, and star	ndard are
A-REI.7					
Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.	Important Mathematical Ideas	1	2	3	4
Note: Linear-linear and linear-quadratic.	and the second second				
	Skills and Procedures				
		1	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / Ev				
Indicate the chapter(s), section(s), and/or page(s) reviewed.	no org examples,	Just	prebleme to	work the	ngh
#10-149	Portions of the domain, cluded developed in the instruction	ster, and nal mater	standard that a	are missing or n	ot well
	A STATE OF THE REAL PROPERTY.		E1=		
	Overall Rating	+			→
		1	2	(3)	4

Title of Instructional Materials:

ALGEBRA I - ALGEBRA (A)

Represent and solve equations and inequalities graphically.	Summary and documentati met. Cite examples from th	on of how	the domain, cl	uster, and stan	dard are
A-REI.10	The state oxampios from the	e materials			
Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	Important Mathematical Ideas	1	2	3	4
Note: Linear and exponential; learn as general principle.					
	Skills and Procedures	I	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / Ev	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
#3-44 3.1.6 3.1.7 3.21 MN #6-50	Portions of the domain, clusted developed in the instruction mod experiental	ster, and s	tandard that ar Is (if any):	e missing or no	ot well
#6-50	Overall Rating	1	2	1 6	} →

Reviewed By:	

	_			
Title	f In atom		1 3 1-4	1
Tille c	n instri	ictiona	IVIAT	erials.

Reasoning with Equations and Inequalities (A-REI)

Represent	and solve	equatione	and incom	alitice ara	phically
Kepiesent	and Solve	equations	and mequ	anties gra	pilically.

A-REI.11

Explain why the *x*-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.*

Note: Linear and exponential; learn as general principle.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

4.2.2 - 4.2.4

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

Skills and Procedures

Mathematical Relationships

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

mo poly, nat, abs v1, exp., orlog

Overall Rating



Reviewed By:		
--------------	--	--

Title of Instructional Materials:

ALGEBRA I — ALGEBRA (A)

Represent and solve equations and inequalities graphically.	Summary and documentati met. Cite examples from the	ion of how t	he domain, clu	ster, and sta	indard are
A-REI.12		· · · · · · · · · · · · · · · · · · ·			
Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	Important Mathematical Ideas	1	2	3	4
Note: Linear and exponential; learn as general principle.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
9.2.2	Portions of the domain, clu developed in the instruction	ster, and st	andard that are s (if any):	e missing or	not well
9.3.1					
	Our rell Deti				
	Overall Rating	1	2	3	4

Reviewed By:

Title of	Instructional	Materials.	
I ILIC OI	msuuchonai	Maleriais.	

ALGEBRA I - FUNCTIONS (F)

Interpreting Functions (F-IF)

Understand the concept of a function and use function notation.	Summary
and all interest and all interests.	met Cite

F-IF.1

Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).

Note: Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

11.1.1-11.1.3

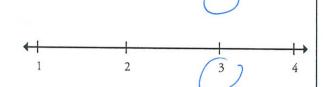
Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

1 2 3 4

Skills and Procedures

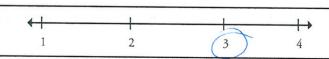
Mathematical Relationships



Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating



Reviewed By:		
--------------	--	--

ALGEBRA I — FUNCTIONS (F)

Understand the concept of a function and use function notation.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.2 Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	Important Mathematical Ideas 1 2 3 4
Note: Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences.	
	Skills and Procedures 1 2 3 4
	Mathematical Relationships 1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Title of Instructional Materials:

ALGEBRA I - FUNCTIONS (F)

Interpreting Functions (F-IF)

Understand the concept of a function and use function notation.

- The second the second profit of a famound and use function notation

F-IF.3

Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for $n \ge 1$.

Note: Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences.

met. Cite examples from the materials.

Important Mathematical Ideas

Summary and documentation of how the domain, cluster, and standard are

61

Skills and Procedures



Mathematical Relationships



Summary / Justification / Evidence

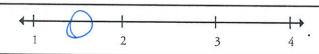
most introduced

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Mot covered in alg

Overall Rating



Title of Instructional Materials:

ALGEBRA I - FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.

F-IF.4

For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*

Note: Linear, exponential, and quadratic.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

11.1.5

11.1.6

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

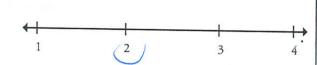
Important Mathematical Ideas



Skills and Procedures



Mathematical Relationships

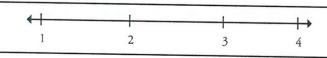


Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Doesn't use voc; no rel. maxor mon, symm, end behavior or periodicity

Overall Rating



Reviewed By:		
57. 50.04116.93 H. P. COS. 056.956.04 # 0.06		

m. 1		·	
11/0	Ot.	Instructional	Matariala
11110	OI	msuuchonai	iviatellais.

ALGEBRA I — FUNCTIONS (F)

t. Cite examples from the ortant Mathematical Ideas Is and Procedures hematical Relationships		2	3	4
	1	2	3	4
hematical Relationships	1	2	(3)	
			9	4
mmary / Justification / E	vidence			
tions of the domain, clu reloped in the instruction	ister, and stai nal materials	ndard that are (if any):	missing or no	t well
arall Pating	ig come de la			
	rtions of the domain, cluveloped in the instruction	eloped in the instructional materials	reloped in the instructional materials (if any):	

Title of Instructional Materials:

ALGEBRA I - FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.

F-IF.6

Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.*

Note: Linear, exponential, and quadratic.

Indicate the chapter(s), section(s), and/or page(s) reviewed.

7.2.1-7.2.3

PCT: 9.1.1-9.2.2 for non-line func.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas



Skills and Procedures



Mathematical Relationships



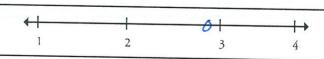
Summary / Justification / Evidence

Only linear

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

mo exp. or guad until pre-calc

Overall Rating



Title of Instructional Materials:

ALGEBRA I - FUNCTIONS (F)

Interpreting Functions (F-IF)

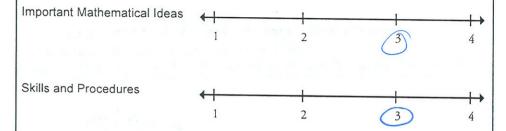
Analyze functions using different representations.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

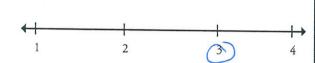
F-IF.7a

- 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.*
 - a. Graph linear and quadratic functions and show intercepts, maxima, and minima.

Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.



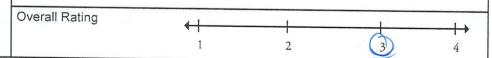
Mathematical Relationships



Summary / Justification / Evidence Max + Min lacking some instruction

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):



Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7b	Important Mathematical Ideas
 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* 	1 2 3 4
 Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. 	Skills and Procedures
Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.	1 2 3 4
	Mathematical Relationships 1 2 3 4
Indicate the chapter(s), section(s), and/or page(s) reviewed. 9.2.3 11.1.1 # 11-70	Summary / Justification / Evidence Mota very large emphasis on graphing
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	until Al, 2 4 Precale
A2C:#10-40 and #10-82	THE RESERVE OF THE PROPERTY OF THE PARTY OF
PCT: 2.1.1	Overall Rating 1 2 3 4

Reviewed By:	
Title of Instructional Materials:	

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation met. Cite examples from the	on of how to	he domain, clus	ter, and stan	dard are
F-IF.7e	regions 10 ×2				
 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* 	Important Mathematical Ideas	1	2	3	4
 e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude. 	Skills and Procedures	1		 3	→
Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.	Jan 1. C. Service 1997	her a sure			4
	Mathematical Relationships		1 2	3	4
	Summary / Justification / Ev	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed. SSD: Exp. Growth + Decay					
	Portions of the domain, clus developed in the instruction	ster, and st	andard that are is	missing or n	ot well
	No log no trig fre Showing perio	nd n	o amplow		
	Overall Rating	H	D.I.		
		1	2	3	4

Reviewed By:			

Title of Instructional	X (
Title of Instructional	Materials:		

Analyze functions using different representations.	Summary and documentation met. Cite examples from the	ion of how th	ne domain, cli	uster, and stand	dard are
F-IF.8a		e materials.			
 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. 	Important Mathematical Ideas	1	2	3)	4
a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.	Skills and Procedures	—			(`s
Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.		1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed. $8.2.2 - 8.2.5$	Mathematical Relationships				
		1	2	3	4
	Summary / Justification / E	vidence			
	Portions of the domain, clu developed in the instruction	ster, and sta	indard that are	e missing or no	ot well
	No symmetry de	scussion			
	Overall Rating	4		1.6	
		1	2.	30	4

Reviewed By:	
Title of Instructional Materials:	

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
 F-IF.8b Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. b. Use the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as y = (1.02)^t, y = (0.97)^t, y = (1.01)^{12t}, y = (1.2)^{t10}, and classify them as representing exponential growth or decay. 	Important Mathematical Ideas Skills and Procedures
Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.	Mathematical Relationships 1 2 3 4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. A2C: 2.1.6 2.1.7 mN 3.1.2-3.1.6 550: Growth/Decay Exp.	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
7.23 7.20	Overall Rating 1 3 4

Reviewed By:	

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Summary and documentati	on of how	the domain, clu	ster, and stand	dard are
The same of the sa	C materials	'•		
Important Mathematical Ideas	1	2	3	4
Skills and Procedures	1	2	3 1	4
Mathematical Relationships	1	2	3	4
developed in the instruction	ster, and st nal materia	tandard that are	missing or no	ot well
Overall Rating				
	Important Mathematical Ideas Skills and Procedures Mathematical Relationships Summary / Justification / Engly linear Portions of the domain, cludeveloped in the instruction only linear	Important Mathematical Ideas Important Mathematical Ideas I Skills and Procedures I Mathematical Relationships I Summary / Justification / Evidence Only linear Portions of the domain, cluster, and sideveloped in the instructional materia Only linear	met. Cite examples from the materials. Important Mathematical Ideas 1 2 Skills and Procedures 1 2 Mathematical Relationships 1 2 Summary / Justification / Evidence Only linear Portions of the domain, cluster, and standard that are developed in the instructional materials (if any): Only linear	Important Mathematical Ideas 1 2 3 Skills and Procedures 1 2 3 1 Mathematical Relationships 1 2 3 1 Mathematical Relationships 1 2 3 1 Summary / Justification / Evidence Only linear Portions of the domain, cluster, and standard that are missing or no developed in the instructional materials (if any): Only linear

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)

Build a function that models a relationship between two quantities.	Summary and documentati met. Cite examples from th	on of how the materials.	ne domain, clu	ster, and stand	dard are
F-BF.1a					
1. Write a function that describes a relationship between two quantities.*	Important Mathematical Ideas	+			
 Determine an explicit expression, a recursive process, or steps for calculation from a context. 		1	2	3	4 ^
Note: Linear, exponential, and quadratic.	Skills and Procedures	4			1.5
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	2	3	4
	Mathematical Relationships				
	wathernatical Relationships	1	2	3	4
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.				¥	
4.1.1-4.1.2 7.1:1-7.3.4 12.4.2	Portions of the domain, clu developed in the instructio	ster, and stand standard	andard that are s (if any):	e missing or no	ot well
12.4.2				, i	
	Overall Rating		2		→

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)

Build a function that models a relationship between two quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.1b	
1. Write a function that describes a relationship between two quantities.*	Important Mathematical Ideas
b. Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.	Skills and Procedures
Note: Linear, exponential, and quadratic.	1 2 3 4
	Mathematical Relationships 1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	
12.4.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
A2C: #1-36 #1-70	Not covered where combining really
#2-102	
#2-142	Overall Rating
7.2.3-7.2.4	1 2 3 4

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Build a function that models a relationship between two quantities.	Summary and documenta met. Cite examples from to	tion of how th	e domain, clu	ster, and stand	dard are
F-BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.*	Important Mathematical Ideas		2	3	4
Note: Linear, exponential, and quadratic.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	1	2	3	
	Summary / Justification / I	Evidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
A2C:2.1.1-2.1.5 2.1.8 550: Segnences	Portions of the domain, clideveloped in the instruction Not covered in a	onal materials	(if any):	e missing or no	ot well
	Overall Rating		1 2	3	→

Reviewed By:	
Title of Instructional Materials:	

Building Functions (F-BF)

Build new functions from existing functions.	Summary and documentation	on of how the	e domain, clu	ster, and stand	lard are
F-BF.3	met. Cite examples from the	e materials.			
Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, k $f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. <i>Include recognizing even and odd</i>	Important Mathematical Ideas	1	2	3	4
functions from their graphs and algebraic expressions for them. Note: Linear, exponential, quadratic, and absolute value.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / Ev	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
11.1.6	Portions of the domain, clus developed in the instruction	ster, and stan	dard that are (if any):	missing or no	t well
	Overall Rating	1	2	3	4

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.	Summary and documentati met. Cite examples from the	on of how the materials.	ne domain, clu	ster, and stan	dard are
F-BF.4a					
4. Find inverse functions.	Important Mathematical Ideas				
a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \ne 1$.		(1)	2	3	4
Note: Linear only.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	(1)	2	3	4
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
A2C: 6.1.1-6.1.3	Portions of the domain, clu developed in the instruction not in alg 1	nal materials	(if any):	missing or n	ot well
	Overall Rating	()	2	3	

Reviewed By:	
•	

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.1a	
 Distinguish between situations that can be modeled with linear functions and with exponential functions. 	Important Mathematical Ideas 1 2 3 4
 a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.* 	Skills and Procedures 1 2 3 4
	Mathematical Relationships 1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	
A2C:2.1.4, 3.1.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): -observe, not prove -only in AZ cumc.
	Overall Rating 1 2 3 4

Reviewed By:	
Reviewed By:	

T' 1	CI	nstructiona	136	
IIIIA	Ot I	netructions	I Matariala	
11110	OI	nsu ucuona	I WIALCITALS	

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation met. Cite examples from the			ster, and stand	lard are
F-LE.1b1. Distinguish between situations that can be modeled with linear functions and with exponential functions.	Important Mathematical Ideas	1	2	3	4
b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.*	Skills and Procedures	1	1 2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
4.1.4 A2C:1.2.3, 2.1.4 SSD: In, Quad, Exp. Tables	Portions of the domain, clu developed in the instruction			missing or no	ot well
	Overall Rating	1	10	3	4

Reviewed By:	

Title of Instructional Materials:

ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.

F-LE.1c

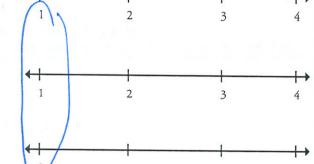
- 1. Distinguish between situations that can be modeled with linear functions and with exponential functions.
 - c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.*

Indicate the chapter(s), section(s), and/or page(s) reviewed.

A2C: 2.1.4, 2.1.6, 3.1.2-3.1.6 SSD: Lin, Quad, Exp Tables Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

Skills and Procedures



Mathematical Relationships

Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

only in AZ curr.

Overall Rating

1 2 3 4

Reviewed By:	April 19	

1		1		- C I	T:41 -
10.	ateria	nal	ngrriici	OT I	THE
	lateria	mai	nstruct	OLI	THE

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.				
F-LE.2					
Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).*	Important Mathematical Ideas		2	3	4
	Skills and Procedures	+		-	
		1	2	3	4
	Mathematical Relationships	+			
		1	2	3	4
	Summary / Justification / E	Evidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
4.1.2-4.1.5	Portions of the domain, clu	uster, and sta	indard that ar	e missing or no	ot well
4.1.7	developed in the instructional materials (if any):				
	Noexponenti	al			
A 2C: 2.1.1 - 2.1.8					
CCD: Con Growth Decay					

Overall Rating

Reviewed By:	

	2			
Titla	of Instr		1 11-4	1 -
Tille	OI Insir	uctions	al IVIAT	eriais.

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation met. Cite examples from the	on of how t e materials.	he domain, clu	ster, and stand	dard are
F-LE.3		77 V T S			
Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.*	Important Mathematical Ideas	1	2	3	4
	Skills and Procedures	4	111111111111111111111111111111111111111	-	→
		1	2	3	4
	Mathematical Relationships	1			
		4	2	3	4
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.					
A2C: 2.1.4, 3.1.3	Portions of the domain, clu developed in the instruction	ster, and st	andard that are	missing or no	ot well
	Only in A2 cum	r.			
	Total Transfer of the	T Same			
	Overall Rating		2.	3	4

Title of Instructional Materials:

ALGEBRA I - FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Interpret expressions for functions in terms of the situation they model.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

F-LE.5

Interpret the parameters in a linear or exponential function in terms of a context.*

Note: Linear and exponential of form $f(x) = b^x + k$.

Important Mathematical Ideas

1 2 3 4

Skills and Procedures



Mathematical Relationships



Summary / Justification / Evidence

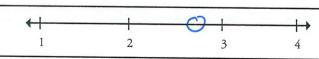
Indicate the chapter(s), section(s), and/or page(s) reviewed.

A2C:2.1.6, 2.1.7MN 3.1.6, 7.2.3, 7.2.4 Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

- only linear

- exponential in Ad curr

Overall Rating



Reviewed By:	
	95000 100 1860 1840 1840 1870 1870 1870 1870 1870 1870 1870 187

T'11 C	Instructional	11.	
LITTLE OF	Instructional	Matariala	
I ILIC OI	mod detional	Malchais.	

Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.1	
Represent data with plots on the real number line (dot plots, histograms, and box plots).	Important Mathematical Ideas 1 2 3 4
	Skills and Procedures
	1 2 3 4
	Mathematical Relationships .
	1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	
SPE: 5.1.2,5.1.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	In statistics resource only
	Overall Rating 1 2 3 4

Reviewed By:	
Title of Instructional Materials:	

Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.2	
Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	Important Mathematical Ideas 1 2 3 4
	Skills and Procedures 1 2 3 4
	Mathematical Relationships 1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	
SPR: 5.2.1	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	SPR: resource only
	Overall Rating 1 2 3 4

Reviewed By:	
Title of Instructional Materials:	

Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how t met. Cite examples from the materials.	he domain, clu	ster, and stan	dard are
S-ID.3				
Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	Important Mathematical Ideas	2	3	4
Carlot parante				
	Skills and Procedures			
	1	2	3	4
	Mathematical Relationships			
	1	2	3	4
	V			
	Summary / Justification / Evidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.				
SPR: 5.1.1 + 5.2.1	Portions of the domain, cluster, and st developed in the instructional material	andard that are	e missing or n	ot well
	In Statistics resource on			
	by granding regulation of	~ cy		
	Overall Rating			
		2	3	4

Reviewed By:	

Title of Instructional Materials:

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.5	
Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	Important Mathematical Ideas 1 2 3 4
Note: Linear focus; discuss general principle.	Skills and Procedures 1 2 3 4
	Mathematical Relationships 1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	*
SPR: 5.2.2	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): In stanistics resource only
	Overall Rating 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Reviewed By:	
Title of Instructional Materials:	

Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.							
S-ID.6a6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.	Important Mathematical Ideas	1	2	3	4			
 a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models. Note: Linear focus; discuss general principle. 	Skills and Procedures	1	2	3	4			
rece. Elitedi reces, discussi general principie.	Mathematical Relationships	1	2	3	4			
	Summary / Justification / E	vidence						
Indicate the chapter(s), section(s), and/or page(s) reviewed.								
7.1.2, 7.3.3	Portions of the domain, clu developed in the instruction			e missing or no	ot well			
	Overall Rating	1	2	3	4			

Title of Instructional Materials:

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

Summarize, represent, and interpret data on two categorical and quantitative variables.

S-ID.6b

6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

1 2 3 4

- describe how the variables are related.
- b. Informally assess the fit of a function by plotting and analyzing residuals.

Note: Linear focus; discuss general principle.

Skills and Procedures

1 2 3 4

Mathematical Relationships

1 2 3 4

Indicate the chapter(s), section(s), and/or page(s) reviewed.

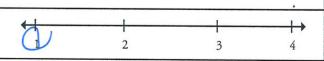
SPR: 7.1.2, 7.1.3, 7.2.1, 7.2.3, 7.2.4

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

In statistics resource only

Summary / Justification / Evidence

Overall Rating



Title of Instructional Materials:

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.							
 S-ID.6c Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. c. Fit a linear function for a scatter plot that suggests a linear association. Note: Linear focus; discuss general principle. 	Important Mathematical Ideas Skills and Procedures	1	2	3	4			
	Mathematical Relationships Summary / Justification / E	1 l	2	3	4			
Indicate the chapter(s), section(s), and/or page(s) reviewed. 7.1, 2, 7,3.3	Portions of the domain, cludeveloped in the instruction			e missing or	not well			
	Overall Rating	1	1 2	3	4			

Title of Instructional Materials:

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpret linear models.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.									
S-ID.7	Important Mathematical Ideas									
Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	1 2 3 4									
	Skills and Procedures 1 2 3 4									
	Mathematical Relationships 1 2 3 4									
	Summary / Justification / Evidence									
Indicate the chapter(s), section(s), and/or page(s) reviewed.										
SPR: 7.1.1, 7.1.2, 7.1.4, 7.2.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):									
	In Statistics resource only									
	Overall Rating									
	Overall Rating 1 2 3 4									

Title of Instructional Materials:

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpret linear models.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.							
S-ID.8								
Compute (using technology) and interpret the correlation coefficient of a linear fit.	Important Mathematical Ideas 1 2 3	4						
	Skills and Procedures 1 2 3	4						
	Mathematical Relationships 1 2 3	4						
	Summary / Justification / Evidence							
Indicate the chapter(s), section(s), and/or page(s) reviewed.								
SPE: 7.2.2, 7.2.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):							
	In stats resource only							
	Overall Rating 1 2 3	4						

Reviewed By:	
Title of Instructional Materials:	

Interpret linear models.	Summary and documentation of how the domain, cluster, and standard armet. Cite examples from the materials.									
S-ID.9										
Distinguish between correlation and causation.	Important Mathematical Ideas 1 2 3 4									
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -									
	Skills and Procedures 1 1 2 3 4									
	Mathematical Relationships 1 2 3 4									
	Summary / Justification / Evidence									
Indicate the chapter(s), section(s), and/or page(s) reviewed.										
SPR: 6.2.1	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):									
	In stats resource only									
	section and the section of the secti									
	Overall Rating 1 2 3 4									

Title of Instructional Materials:

CPM

3

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of gain insight into its solution. They make context of gain insight into its solution and prohibition and prohibition and prohibition and prohibition and gain insight into its solution. They make context of gain insight into its solution and prohibition and gain insight into its solution. They make context of gain insight into its solution and gain insight into its solution. They make context of gain insight into its solution. They make context of gain insight into its solution. They make context of gai

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence





Reviewed By:	
Title of Instructional Materials:	

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and tlexibly using different properties of operations and objects.

indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence





Algebra 1

The Real Number System N -RN

Extend the properties of exponents to rational exponents.

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define 51/3 to be the cube root of 5 because we want (51/3)3 = 5(1/3)3 to hold, so (51/3)3 must equal 5.

2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

Use properties of rational and irrational numbers.

3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is

irrational; and that the product of a nonzero rational number and an irrational number is irrational

manosan, and t	Development Connections								Rigor and Depth Overall/Evidence						
Mathematical Ideas	Are ic	deas cond oped (4) a simple	eptually or appro	ached	math io	deas (4)	nded to o or devel of each o	oped	importa of mult only us	ant ideas iple app	e extens and the roaches edures a 1)?	use (4) or	RN1 P-98		
	4	3	2	1	4	3	2	T	4	3	2	1			
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)? Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?						critical other r they p	to the a nath ide acticed	rocedure pplicatio as (4) or without elopmer	n of are					
	4	3	2	1	4	3	2	1	4 3 2 1						
Mathematical Relationships	to bu	nath rela uild under ar as a s pendent s	standing eries of	(4) or	with of	ther mat oblems f	os integr h ideas (ocusing	(4) or	broad require	use of m	os require nath (4) e of skills ?	or only			
	4	3	2	1	4	3	2	1	4 3 2 1						
Missing or weak	conte	nt from	this sta	andard	<u> </u>		RN	13	in_		plen.	urt-			

Overall for this Standard:

Algebra 1

Quantities N -Q

Reason quantitatively and use units to solve problems. (Foundation work with expressions, equations, and functions)

- 1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
- 2. Define appropriate quantities for the purpose of descriptive modeling.
- 3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

		Devel	opme	nt	(Conne	ection	S	Rig	jor ar	nd Dep	oth	Overall/Evidence
Mathematical Ideas	devel	oped (4)	ceptually or appro skill leve	oached	math i	eas expa deas (4) ndently	or devel	oped	importa of mult only us	ant idea: iple app	re extens s and the roaches cedures a (1)?	use (4) or	
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	integr or are	ated wit	procedur h math i e primar (1)?	deas (4)	connector contreated	lls and pated to o ted as is connec	ther idea olated sl	as (4) kills	critical other r they pi	to the a nath ide racticed	procedure pplication as (4) or without velopmen	n of are	
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	to bu appea	ild under ar as a s	standing		with of	ationship ther mat oblems fo)?	h ideas ((4) or	broad require	use of m	s require nath (4) o e of skills ?	or only	
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: _____

Algebra 1

Seeing Structure in Expressions A-SSE	
Interpret the structure of expressions	,

1. Interpret expressions that represent a quantity in terms of its context.

211-2,1-5

- a. Interpret parts of an expression, such as terms, factors, and coefficients.
- b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example interpret P(1+r) as the product of P and a factor not depending on P.
- 2. Use the structure of an expression to identify ways to rewrite it. For example, see $x_1 y_1$ as $(x_2)_2 (y_2)_2$, thus recognizing it as a difference of squares that can be factored as $(x_2 - y_2)(x_2 + y_2)$.

Write expressions in equivalent forms to solve problems

- 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. *
- a. Factor a quadratic expression to reveal the zeros of the function it defines.
- b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.

C. Use the properties of exponents to transform expressions for exponential functions. For example the expression 1.15; can be rewritten as $(1.15_{1.12})_{127}$ 1.012:2 to reveal the

approximate equivalent monthly interest rate if the annual rate is 15%. Overall/Evidence Rigor and Depth Connections Development Do ideas require extension of Are ideas expanded to other Are ideas conceptually

Mathematical Ideas	devel	oped (4)	ceptually or appro skill leve	pached	math id	as expar deas (4) ndently (or devel	oped	importa of mult only us	ant ideas iple appr	and the roaches (edures a	use (4) or						
	4	3	2	1	4	3	2	1	4	3	2	1	Natural Control	 		 		
Skills and Procedures	integi or are	ated wil	procedur th math in the priman (1)?	deas (4)	connector or trea	lls and p ted to ol ted as is connec	ther idea olated sl	s (4) dls	critical other r they pr	to the ap nath idea acticed v	rocedure pplication as (4) or without elopmen	n of are						
	4	3	2	1	4	3	2	1	4	3	2	1				 		
Mathematical Relationships	to bu	ild unde ar as a s	ltionships rstanding eries of skills (1)?	ı (4) or	with of	i ationship ther mat oblems fo)?	h ideas (4) or	broad require	use of m	s require ath (4) o of skills ?	or only			•			
	4	3	2	1	4	3	2	1	4	3	2	1						

Missing or weak content from this standard

Overall for this Standard: _



Algebra 1

Arithmeti	c with	Polynomia	ls and R	lational	Expressions	Α	-APR

Perform arithmetic operations on polynomials
1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

		Devel	opme	nt	(Conne	ection	S	Rig	gor ar	nd De	pth	Overall/Evidence
Mathematical Ideas	deve	loped (4)	ceptually or appro skill leve	ached	math is	deas (4)	nded to or deve of each	loped	importa of mult only us	ant idea tiple app	re extens s and the proaches cedures a (1)?	e use (4) or	
	4	3	2	The state of	4	3	2	1	4	3	2	1	
Skills and Procedures	integrated with math ideas (4) connected to other ideas (4) critical to the application of									n of are			
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	evident (4) or	with of	her mat oblems f	ps integr h ideas (ocusing	(4) or	broad require	use of m	os require nath (4) e of skills ?	or only				
	4	3	2	1	4	3	2	1	4	3	2	1	
Missing or weak	conter	nt from	this sta	ındard									

Overall for this Standard: _____

Algebra 1

Creating Equations A -CED

Create equations that describe numbers or relationships

1. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.

4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law V = IR

to highlight resistance R.

to highlight rest.				m.t.		Conne	ction		Ric	ior ar	id Dep	oth	Overall/Evidence
Mathematical Ideas	L developed (4) Of 30010dCIEU						nded to or or devel of each o	other oped	Do idea importa of mult only us	as requir ant ideas tiple app	e extens and the roaches cedures a	ion of use (4) or	
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	integ or ar	l kills and rated wit e they th e lesson	h math i e primar	deas (4)	connector or treat	lls and parted to o ted to o ted as is o connec	ther idea colated s	as (4) kills	critical other r they p	to the a math ide racticed	procedure applicatio as (4) or without velopmen	n of are	
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	s evident g (4) or	with o	ationshi ther mat oblems f)?	h ideas i	(4) or	broad require	use of n	os require nath (4) o e of skills)?	or only				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard:

Algebra 1

Reasoning with Equations and Inequalities A -RE I

Understand solving equations as a process of reasoning and explain the reasoning

1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

Solve equations and inequalities in one variable

- 3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
- 4. Solve quadratic equations in one variable.

a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form (x-p)2 = q that has the same solutions. Derive the quadratic formula from this form.

b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the

initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a 1 \} bi for real numbers a and b.

		Devel	opmei	nt	(Conne	ection	S	Rig	jor ar	nd De	pth		verall/Evidence
Mathematical Ideas	Are ic	leas cond oped (4)	ceptually or appro skill leve	ached	math i	deas (4)	nded to or deve of each	loped	importa of mult only us	ant idea: iple app	re extens s and the proaches cedures a (1)?	e use (4) or	3	3,2:1-3,2,4
	4	3	2	1	4	3	2	1	4	3	2	1		
Skills and Procedures	integr or are	rated wit	procedur h math ic e primary (1)?	deas (4)	connector or treat	ted to o	procedurather idea solated s ction (1)	as (4) kills	critical other r they pr	e skills and procedures tical to the application of her math ideas (4) or are ey practiced without nceptual development (1)?			95 & 49	po 436 445
	4	3	2	1	4	3	2	1	4	3	2	1		
Mathematical Relationships	to bu	ild under ar as a se	tionships standing eries of skills (1)?	(4) or	with o	ther mat oblems f	h ideas i	ideas (4) or broad use of math (4) or only cusing on drill require the use of skills and procedures (1)?						
	4	3	2	1	4	3	2	1	4	3	2	1		

Missing or weak content from this standard

Overall for	r this	Standard:	

Mytiple methods & wome ting in solving equities 425-435 424-427

Algebra 1

Reasoning with Equations and Inequalities A -RE I

Solve systems of equations

- 5. Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
- 7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line y = -3x and the circle $x^2 + y^2 = 3$.

8 (1) Represent a system of linear equations as a single matrix equation in a vector variable.

Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3 × 3 or

greater).	Г	Sovolo	opmei	at .	(Conne	ction	ς	Rio	or an	id Dej	oth	Overall/Evidence
Mathematical Ideas	Are ide	eas conc ped (4)	eptually or appro skill leve	ached	Are ide	as expar deas (4) ndently (nded to o	other oped	Do idea importa of mult only us	s requir int ideas iple app	e extens and the roaches edures a	ion of use (4) or	Ohapter S
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	integra or are	ated with	procedur n math ic primary 1)?	deas (4)	connector or trea	ils and pated to of ted to of ted as is of connect	ther idea olated sl	as (4) kills	critical other r they pr	to the a nath ide acticed	procedure pplicatio as (4) or without relopmer	n of are	REI 7 p. 392
L CANADA I	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	to bui	ld under ır as a se	ionships standing eries of kills (1)?	(4) or	with of	ationship ther mat oblems fo)?	h ideas ((4) or	broad require	use of m	os require nath (4) e e of skills i?	or only	
	4	3	2	1	4	3	2	1	4 3 2 1				

Missing or weak content from this standard

Overall for this Standard: ___

Algebra 1

Reasoning with Equations and Inequalities A -RE I

Represent and solve equations and inequalities graphically

- 10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
- 11. Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = f(x)g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

12. Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

solution set to a s	ystem	Of fifter	n mequa	HILLOS III												·····
		Devel	opme	nt	(Conne	ection	S	Rig	jor ar	nd Dej	oth	Ove	rall/Evide		
Mathematical Ideas	Are id	leas cono	ceptually or appro skill leve	ached	math io	deas (4)	nded to or devel of each o	oped	importa of mult only us	ant idea: iple app	e extens and the roaches edures a 1)?	use (4) or	lo N	3-44 9.25	-3.4.6 9,0	310
	4	3	2	The same of the sa	4	3	2	1	4	3	2	1				
Skills and Procedures	integ or are	rated wit	procedur th math in e priman (1)?	deas (4)	connector or trea	ted to o ted as is	rocedure ther idea solated s tion (1)	as (4) kills	critical other r they p	to the a nath ide racticed	procedure pplication as (4) or without relopmen	n of are				
	4	3	2	1	4	3	2	1	4	3	2	1				
Mathematical Relationships	to bu appe	ild under ar as a s	tionships rstanding eries of skills (1)?	(4) or	with ot	ther mat oblems for)?	ps integr h ideas (ocusing	(4) or	broad require proced	or relationships require a road use of math (4) or only equire the use of skills and rocedures (1)?						
	4	3	2	1	4	3	2	1	4	3	2	1				

Missing or weak content from this standard

Overall for this Standard: _3__

inequalities / Graphs/ enlysts.

Algebra 1

Interpreting Functions F-IF

Understand the concept of a function and use function notation

1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).

2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci

sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for $n \ge 1$.

sequence is defined			opme		(Conne	ection	S	Ric		id De		Overall/Evidence
Mathematical Ideas	developed (4) or approached math ideas (4) of developed important ideas and the use							e use (4) or	Ch-4				
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	integ or are	rated wit	procedur h math i e primar (1)?	deas (4)	connector or trea	lls and pated to other ted as is connected as is	ther idea olated s	as (4) kills	critical other r they p	to the a nath ide racticed	procedur pplicatic as (4) or without relopmer	n of r are	
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	to bu appe	iild unde ar as a s	tionships standing eries of skills (1)?	(4) or	with of	ationship ther mat oblems f)?	h ideas i	(4) or	broad require	use of m	os require nath (4) e of skills e?	or only	
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: _____

Algebra 1

T	nterpreting	Lungations	5 1 b-c

Interpret functions that arise in applications in terms of the context

4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function h(n) gives

5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function has given the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.

6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of

change from a graph.

		Devel	opme	nt	(Conne	ection	S	Ric	jor an	id Dej	oth	→ Overall/Evidence
Mathematical Ideas	Are id	leas condoped (4)	ceptually or appro skill leve	ached	math id	deas (4)	nded to or devel of each o	oped	importa of mult only us	ant ideas iple app	e extens and the roaches edures a 1)?	e use (4) or	Overall/Evidence FY p-344
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	integr or are	rated wit	procedur th math in e priman (1)?	deas (4)	connection or treation with no	ted to o ted as is connec	rocedure ther idea solated s tion (1)	as (4) kills	critical other r they p	to the a nath ide acticed	rocedure pplication as (4) or without relopmen I 2	n of are	
	4	3	2	1	4	3	2	1	7	J		<u>+</u>	
Mathematical Relationships	to bu	ild under ar as a s	rstanding		with of	ther mat oblems f	ps integr h ideas (ocusing ((4) or	broad require	use of m	s require lath (4) o e of skills ?	or only	
	4	3	2	1	4	3	2	1	4 3 2 1				

Missing or weak content from this standard

Overall for this Standard: \mathcal{V}

Algebra 1

Interpreting Functions F-IF

Analyze functions using different representations

7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

a. Graph linear and quadratic functions and show intercepts, maxima, and minima.

b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

e. Graph exponential functions, showing intercepts and end behavior.

8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.

b. Use the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as y = (1.02)t. y = (1.02)t. (0.97)t, y = (1.01)12t, y = (1.2)t/10, and

classify them as representing exponential growth or decay.

9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example,

given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.

given a graph of or	T	Devel			1.	Conne			Ric	or ar	nd Dep	oth	Overall/Evidence
Mathematical Ideas	Are id	deas con oped (4) a simple	ceptually or appro	oached	math is	eas expai deas (4) ndently (or devel	oped	importa of mult only us	ant idea: iple app	re extens s and the roaches cedures a (1)?	use (4) or	89 p-34/
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	integ or are	kills and rated wit e they th e lesson	h math i e primar	deas (4)	connector or trea	lls and pated to outled to the tending	ther idea olated sl	as (4) kills	critical other r they pi	to the a nath ide racticed	orocedure pplicatio as (4) or without relopmen	n of are	•
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	to bu	nath rela nild under ar as a s pendent s	standing eries of	(4) or	with of	ationship ther mat oblems fo)?	h ideas ((4) or	broad require	use of m	os require nath (4) (e of skills ?	or only	
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Exposential in supple

Overall for this Standard:

Algebra 1

Building Functions F-BF

Build a function that models a relationship between two quantities

- 1. Write a function that describes a relationship between two quantities.
- a. Determine an explicit expression, a recursive process, or steps for calculation from a context.
- b. Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.
- c. (+) Compose functions. For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.
- 2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				*
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: _____